



Impact Investment Shujog Limited

Financing Healthcare Services for the Poor

Financial Innovation for Poverty Reduction Series

Financing Healthcare Services for the Poor

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Executive summary

The last decade has seen impressive achievements in health outcomes and a push to meet the health Millennium Development Goals. As part of this global effort, many governments have pursued universal health coverage and extended government health insurance. Despite this progress, healthcare systems and access to healthcare services vary across Asia. Some countries, such as Malaysia, Singapore and Thailand have achieved universal or nearly universal healthcare coverage, whereas many countries have large sections of their populations without access to healthcare services. Depending on metrics employed, 400-1600 million people in Asia lack access to healthcare services.¹ There is also disparity in healthcare financing models across Asia. On average, 40% of healthcare services in Asia are financed by the public sector, either through the tax system or compulsory insurance mechanisms. In Asia, countries with low levels of publicly financed healthcare systems have a correspondingly high percentage of healthcare services financed through out-of-pocket (OOP) expenditures at the point of service delivery. Private, non-compulsory healthcare insurance make up a small percentage of healthcare financing in Asia.

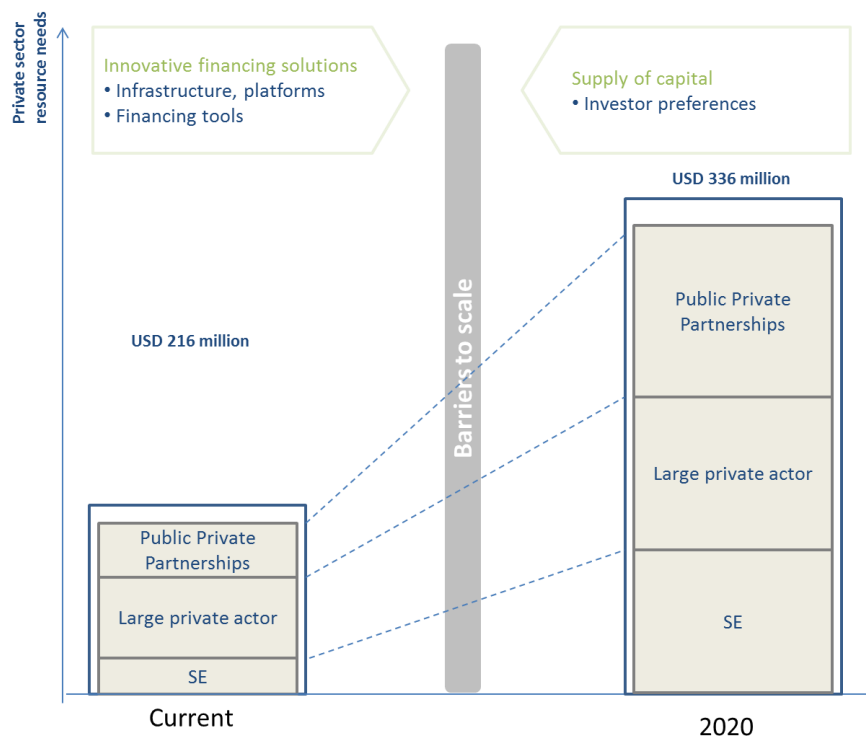
Shujog estimates a funding gap of \$59.38 billion per year to scale healthcare solutions and finance universal access in Asia Pacific. To achieve universal healthcare, public healthcare spending will need to increase. But public healthcare financing is not growing fast enough to overcome the funding gap – and sometimes not growing at all.

A combination of different funding mechanisms is needed to overcome the funding gap, decrease the over-reliance on out-of-pocket spending, and meet the projected increase in healthcare expenditure. Healthcare social enterprises (SEs), private healthcare financing, and public-private partnerships can fund healthcare delivery and provide financial protection for the underserved more rapidly.

Innovative financing will speed up the scaling of healthcare financing that is needed to achieve universal access to healthcare across more countries in Asia. With overstretched public funding and a lack of public healthcare infrastructure, private investment and bilateral and multilateral financing can assist in scaling healthcare solutions to reach those who currently lack financial risk protection, access to healthcare, and improved health outcomes.

Shujog examines six high-potential funding mechanisms emerging in the spectrum of healthcare financing options. Together, these form a continuum from donor-based funding, through blended and hybrid funding models with both philanthropic and market-oriented characteristics, to commercial capital markets-based models. The six mechanisms do not form an exhaustive list of the funding options for healthcare solutions, but have the potential to significantly contribute toward overcoming the current funding gap and finance a foundation for universal healthcare in the future. The six models examined are **crowdfunding**, **social impact bonds**, **innovative loan facilities**, **buffer funds**, **project development partnerships**, and impact-focused **public debt and equity**.

¹ Common indicators for measuring progress toward universal healthcare have not yet been identified, and identifying these is a key priority of further research, according to World Health Organization (2013). Our estimates are based on immunization rates and health outcomes.



Healthcare providers and financiers that target the poor and underserved are crucial to achieve universal coverage, but struggle to balance between reaching their target beneficiaries and reaching scale in a sustainable way. Scaling up requires coordination with other providers to avoid duplication and fragmented projects and programs. Scaling up will also involve a natural move away from dependency on grant funding, and it is important for the provider to consider revenue diversification.

In order to efficiently and effectively leverage impact investing resources in healthcare, there is a need to explore how to layer risk and improve the risk-return profiles to incentivize the entry of more investors. By using donor and blended or hybrid financing, innovative financing solutions can leverage existing resources to bring in larger pools of capital from private and institutional investors.

1 Introduction

The causal links between ill health, poverty, and weak economic growth are well documented and have stimulated increasing investment in health systems over the past decade. A population in better health is more economically productive, and the development of health systems benefits the economy by providing employment, stimulating local procurement, and improving infrastructure.²

The last decade has seen impressive achievements in health outcomes and a push to meet the health Millennium Development Goals: to reduce child mortality, to improve maternal health, and to combat HIV/AIDS, Malaria and other diseases. As part of this global effort, many governments have pursued universal health coverage and extended government health insurance. Asia has also seen a more vibrant private sector working to deliver healthcare services in partnership with the government. Significant efforts to change behaviors, in particular to increase the cultural acceptance of contemporary healthcare financing models such as insurance, have also facilitated extended access to healthcare. Despite this progress, significant challenges remain for low-income countries, and access to basic services is still a problem for millions across Asia. A gap in funding and inadequate policies still hampers efforts toward better and more affordable healthcare for the poor.

Scaling financial resources to meet the needs of the growing populations remains a challenge for achieving universal healthcare in Asia. The idea of moving ‘beyond aid’ with its political biases and prescriptive policies converges with the increasing involvement of private investors in financing health services for the poor. Innovative healthcare financing plays a key role in extending the reach of healthcare solutions to the larger underserved populations in rural areas.³

This report focuses on the ways in which innovative healthcare financing structures can help achieve scalable and sustainable impact on underserved populations in South and South East Asia. It does so by examining current financing patterns in healthcare in South and South East Asian countries, and funding gaps in achieving universal healthcare. In light of this analysis, the paper will evaluate innovative financing mechanisms that can increase healthcare expenditure and support the scaling of healthcare services for the disadvantaged.

To emphasize, this report examines financing of healthcare services. It does not examine other factors that cause ill health and mortality, including nutrition, economic power, education, adequate infrastructure, water and sanitation. Neither does the report assess developments in medical technology or the delivery models of healthcare services. Shujog acknowledges the complex interlinkages with such issues, and hopes to address them in further research subsequent to the present report.

In the spirit of our goal to mainstream social capital markets, this report was created by Shujog through the influence of the many experts in Shujog’s network. Shujog solicited feedback and comments through a series of public events and webinars to ensure the content of the report is relevant and representative of the challenges and developments in healthcare financing in Asia.

² Porter, M.E., 2010. *Value-Based Global Healthcare Delivery*, presentation for the Princeton Global Health Colloquium, September 24, 2010.

³ The Economist Intelligence Unit, 2011. *Healthcare in Asia: The Innovation Imperative* (a white paper by the Economist Intelligence Unit). London: The Economist.

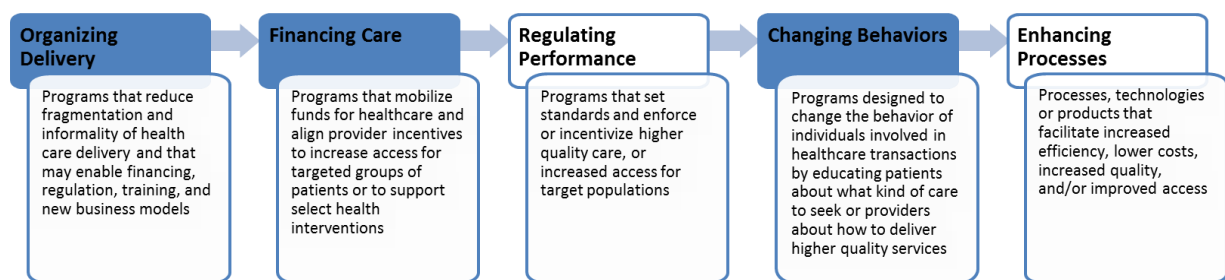
This paper is part of Shujog Research's Financial Innovation for Poverty Reduction Series.

2 Financing Healthcare

2.1 The Global Healthcare Value Chain

Healthcare is traditionally defined as the delivery of treatment and services to people in need of medical attention. Yet the industry's performance is heavily reliant on a vast and complex supply chain of companies working to design, produce, deliver, and manage a wealth of health and medical related products and services. Although doctors, nurses and hospitals are at the center of this massive and complex industry, they represent only a small portion of its influence. The basic elements of the healthcare value chain include:

Figure 1 Healthcare value chain (functional components in shaded boxes)⁴



For this study, we focus on the three basic functional components of the value chain. These are **organizing delivery**, **financing care**, and **changing behaviors**. In addition to the functional components of the value chain, there are supportive components, comprising stakeholders engaged in regulating the performance of functional entities, as well as research and other activities aiming to enhance the processes of the functional healthcare stakeholders.

Public and private health services overlap and complement one another in all of these functional areas.

As illustrated in Table 1, each functional component of the value chain can be administered by both the public and private sectors. A healthcare system can provide universal access to healthcare services for its target population exclusively through public services (e.g. Canada, France, United Kingdom), or a combination of public and private services (e.g. China, Germany, Netherlands, Singapore, Thailand). No country has yet achieved universal healthcare coverage by relying exclusively on private stakeholders.

Regardless of the balance between private and public entities in the healthcare value chain in different countries, the cost of accessing healthcare always leaves some groups and communities underserved relative to more affluent groups. In Asia, this manifests itself in millions of people that either lack healthcare or become destitute due to the financial burden of accessing healthcare services in their communities.

⁴ Adapted from The Center For Health Market Innovations - CHMI Definitions (<http://healthmarketinnovations.org/chmi-definitions>).

Table 1 – Functional components of the healthcare value chain

	Organizing delivery	Financing access	Changing behaviors
Public health services	Governance and regulation Hospital services Outpatient clinics Vaccination	Public health insurance Tax-financed healthcare	Preventive care Public information campaigns
Private health services	Targeted health services Outpatient clinics Mobile health New health technologies Vaccination and medicines	Private health insurance Community-based health insurance	Preventive care Local information campaigns

In general, healthcare entities focusing on organizing delivery provide or help to provide services to a defined population. Delivery is typically done by a mix of private and government entities, including private and public hospitals, community health clinics, and specialized entities that deliver services targeting specific healthcare challenges. An example of a private sector innovation in organizing delivery is Sevamob, a Social Enterprise (SE) ⁵ that provides an online health exchange and mobile clinics that connect patients with healthcare providers.

Entities working on financing access provide insurance products tailored to specific groups, communities, or populations. Common financing mechanisms include national insurance organized by the government, which pools resources and spreads healthcare-related risk across the entire population, and community-based and private health insurance that provide the same function within its community or for its paying customers. An example of this is Naya Jeevan, an SE that provides health insurance to the most disadvantaged employees of large corporations. These companies are willing to pay the insurance premium to cover for the health expenses of their employees.

Entities that focus on changing behaviors concentrate on education, advocacy and information campaigns to change their beneficiaries' mindsets and behavior in order to affect positive health outcomes. They most often run programs on community health, preventative care, and information campaigns. Water and sanitation SEs tend to be dominant in this category. For example, in terms of sanitation, cultural norms and lack of awareness interventions are key obstacles in triggering behavioral change among individuals who practice open defecation. As such, SEs in this sector tend to focus part of their activities on awareness raising and behavioral change. More innovative SEs develop marketing activities that challenge these norms and represents toilets as a 'desired' good rather than imposing them on sanitary grounds.

In order to provide healthcare for all, financing is needed for entities operating in every component of the healthcare value chain. Organizations operating in changing behavior are likely to see fewer market opportunities. These entities often operate other revenue-generating activities or seek grant funding to finance the behavioral change services.

⁵ Social Enterprises in this context is defined as a 'market-driven not-for-profit or mission-driven for-profit entity'.

2.2 Access to Healthcare

The overall aim of a healthcare system is to provide universal access to healthcare services.⁶ The services may be delivered either by private or public organizations, and access can likewise be financed by both private and public sources.

Healthcare systems and access to healthcare services vary across Asia. Some countries, such as Malaysia, Singapore and Thailand have achieved universal or nearly universal healthcare coverage, whereas many countries have large sections of their populations without access to healthcare services. Depending on the metrics employed, 400-1600 million people in Asia lack access to healthcare services.⁷

There is also disparity in healthcare financing models across Asia. On average, approximately 40% of healthcare services in Asia are financed by the public sector, either through the tax system or compulsory insurance mechanisms. At one end, Thailand's universal healthcare system is 75% financed by the public sector. At the other end, Cambodia and Myanmar's healthcare services are only 23% and 13% publicly financed, respectively. These figures compare to a global average of approximately 60% public financing, and more than 74% public financing in Western European countries.

In Asia, countries with low levels of publicly financed healthcare systems have a correspondingly high percentage of healthcare services financed through out-of-pocket (OOP) expenditures at the point of service delivery. Private, non-compulsory healthcare insurance make up a small percentage of healthcare financing. Thailand, with Asia's highest share of public healthcare financing, is one of the few countries in Asia with universal access to healthcare.

⁶ In 2005, all World Health Organization's Member states committed to achieve universal care, by giving "all people [...] access to the health services they need without risk of financial ruin or impoverishment". WHO (2013), "The World Health Report 2013".

⁷ Common indicators for measuring progress toward universal healthcare have not yet been identified, and identifying these is a key priority of further research, according to World Health Organization (2013). Our estimates are based on immunization rates and health outcomes.

Table 2 - Healthcare financing in Asia (sample), by public health expenditure (percentage of total)⁸

Country	Population (millions)	Total health expenditure (% of GDP)	Public health expenditure (% of total)	OOP expenditure (% of total)	Private, non-compulsory insurance
Thailand	66.6	4.06%	75.46%	13.69%	10.85%
China	1344.1	5.16%	55.89%	34.77%	9.34%
Lao PDR	6.5	2.77%	49.29%	39.68%	11.03%
Malaysia	28.8	3.58%	45.68%	41.72%	12.60%
Vietnam	87.8	6.81%	40.35%	55.68%	3.97%
Bangladesh	152.9	3.72%	36.58%	61.27%	2.15%
Indonesia	176.2	2.72%	34.14%	49.88%	15.98%
Philippines	95.1	4.07%	33.33%	55.92%	10.75%
Singapore	5.2	4.56%	31.02%	60.42%	8.56%
India	1221.1	3.87%	31.00%	59.36%	9.64%
Pakistan	243.8	2.51%	27.02%	63.01%	9.97%
Cambodia	14.6	5.69%	22.45%	56.89%	20.66%
Myanmar	52.4	2.00%	12.96%	80.68%	6.36%

2.2.1 Which Countries are Achieving Universal Healthcare?

To qualify as providing universal access to healthcare, the funding mechanism(s) must achieve three key outcomes, and in the process, answer three corresponding questions.⁹

1. Financial risk protection: What proportion of healthcare costs is covered?
2. Access to healthcare: Who is covered?
3. Improved health outcomes: Which services are covered?

WHO estimates that achieving universal healthcare requires public spending on health to amount to 4.5% or more of GDP in order to finance access for those who would not be able to pay the full cost of their own healthcare services. In addition, out-of-pocket expenses should not amount to more than 30-40% of total healthcare expenditure.¹⁰

Of the countries examined, only Singapore and Thailand have managed to implement full universal coverage for its citizens (

⁸ Data from the World Bank (<http://data.worldbank.org/>).

⁹ <http://blogs.adb.org/blog/why-universal-health-coverage-needs-better-measurements>

¹⁰ British Medical Journal. BMJ 2009;339:b3989 <http://www.bmj.com/content/339/bmj.b3989>

Table 3). Several countries have legislation in place to provide universal healthcare, but implementation lags behind either due to inadequate funding, inadequate access, or a combination of these two factors.

Table 3 - Universal healthcare and funding structure¹¹

Country	Universal healthcare	OOP expenditure (% of total)	Public health expenditure (% of GDP)
Benchmark	Full	30.00%	4.5%
Thailand	Full	13.69%	3.06%
China	Partial	34.77%	2.88%
Lao PDR	No	39.68%	1.37%
Malaysia	Full	41.72%	1.64%
Indonesia	Partial	49.88%	0.93%
Vietnam	No	55.68%	2.75%
Philippines	No	55.92%	1.36%
Cambodia	No	56.89%	1.28%
India	Partial	59.36%	1.20%
Singapore	Full	60.42%	1.41%
Bangladesh	No	61.27%	1.36%
Pakistan	No	63.01%	0.68%
Myanmar	No	80.68%	0.26%

On average, patients in Asia spend approximately \$150 per person per year on healthcare, which is significantly lower than the global average of \$950. Average per capita expenditure on healthcare in South and Southeast Asia has remained at \$43 since 2000. This average masks extremely low expenditure in some countries; case in point is Bangladesh, where this figure stands at \$4.20.¹²

There is overall growth in the healthcare market in Asia. In terms of healthcare expenditure, Asia has grown from 3% of the global healthcare market in 2000 to an 8% share in 2014. Contrary to the low total overall health spending for the region, Asia's private and out-of-pocket expenditure is quite large, accounting for 18% of the global total. This indicates the growth potential for private and market-based health financing solutions.

Healthcare expenditure is projected to increase by 151% from 2010 to 2020.¹³ Table 4 summarizes Asian countries' out of pocket expenses and population. Using out-of-pocket expenses as a proxy for the size of the market for non-public healthcare services, by 2020 this market is estimated to be worth approximately \$325 billion in our selected countries.

¹¹ Data from the World Bank (<http://data.worldbank.org/>).

¹² IIX: Buffer Fund Report

¹³ Frost & Sullivan market research (2012). See: <http://www.frost.com/prod/servlet/press-release.pag?docid=254506089>

Table 4 - Sample market size, based on OOP payments¹⁴

Country	Population (millions)	OOP expenditure in 2011 (US\$ millions) ¹⁵	Projected OOP in 2020 (US\$ millions)
Bangladesh	150	\$2,550	\$3,851
Cambodia	14	\$414	\$626
China	1,344	\$131,365	\$198,360
India	1,242	\$43,023	\$64,964
Indonesia	242	\$11,482	\$17,338
Lao PRD	7	\$90	\$136
Malaysia	29	\$4,300	\$6,493
Myanmar	52	\$838	\$1,265
Pakistan	177	\$3,332	\$5,032
Philippines	95	\$5,116	\$7,726
Singapore	5	\$6,750	\$10,193
Thailand	70	\$1,921	\$2,901
Vietnam	88	\$4,690	\$7,083
Sum	3,495	\$215,873	\$325,968

2.3 Financing Universal Access to Healthcare Services

The three functional areas of the healthcare value chain typically comprise a combination of private and government initiatives, and universal healthcare can be achieved with different combinations of private and public involvement in both financing and healthcare delivery. There is no ideal balance of private and public activity, although most – if not all – countries exhibit a combination of private and public service delivery, and private and public financing (

¹⁴ Data from the World Bank (<http://data.worldbank.org/>). Estimated growth based on Frost & Sullivan (2012).

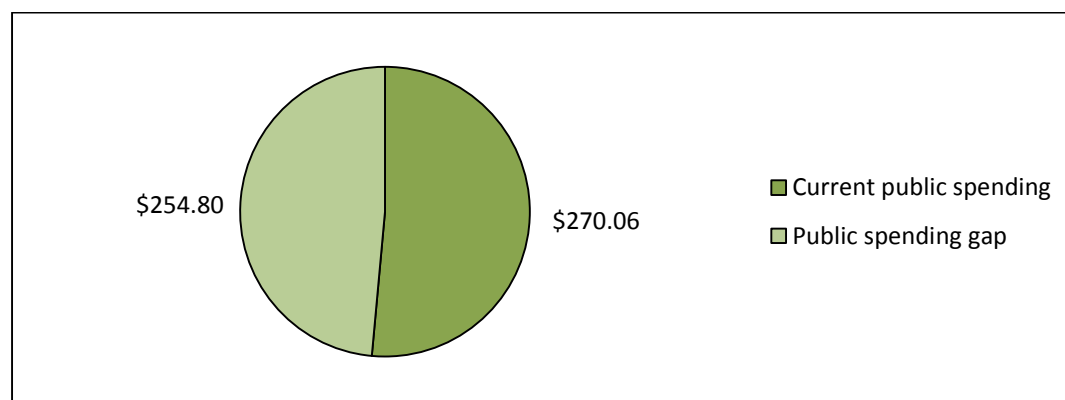
¹⁵ Data from World Bank, 2011. <http://data.worldbank.org/> Shujog projections in constant 2011 dollars.

Table 3 - Universal healthcare and funding structure, above). Notwithstanding the flexibility of financing structures, the scale of financing remains a challenge for achieving universal healthcare in Asia.

Based on WHO guidelines for financing universal healthcare, Shujog estimates a funding gap of \$59.38 billion to scale healthcare solutions and finance universal access in the 13 countries examined.¹⁶ Additional funding is needed to increase access to healthcare for people in remote areas that are not accessible to current healthcare delivery systems, to increase financial protection for those that cannot afford high quality healthcare services without becoming financially destitute, and to increase innovation in healthcare delivery that improves affordability and the reach of today's healthcare systems.

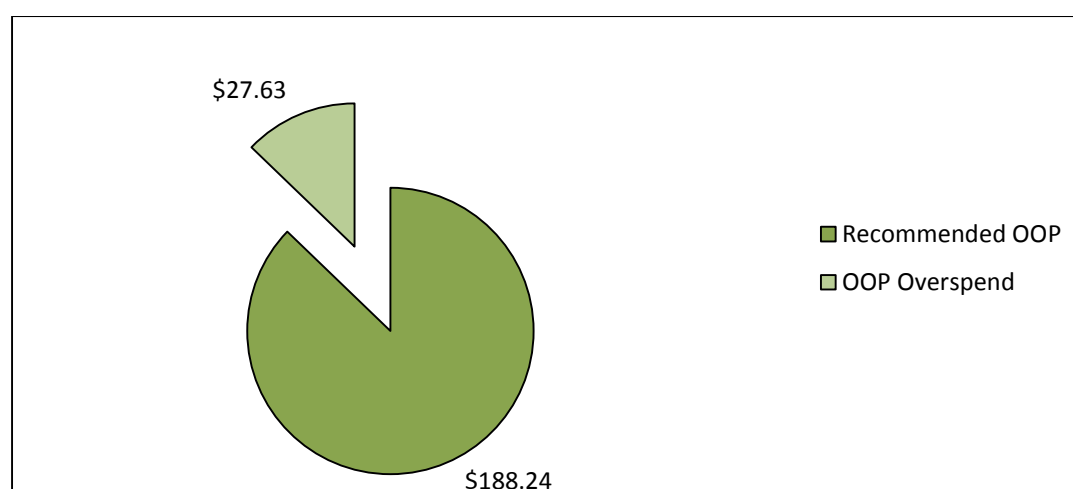
The current funding gap is a result of two counteracting trends in healthcare financing in Asia: Inadequate public healthcare financing (Figure 2) and over-reliance on out-of-pocket (OOP) spending (Figure 3) – in particular for catastrophic healthcare spending. The public financing gap is a reflection of overstretched public budgets – often a result of poor collection of tax revenues – and inadequate prioritization of government healthcare funding. The lack of prioritization may itself be a result of inadequate political accountability to those who fall outside the current healthcare system. The excessive reliance on OOP expenditures is a direct result of inadequate public financing and inadequate health insurance alternatives – both public and private.

Figure 2 – Current public healthcare financing gap (\$BN)



¹⁶ Shujog estimate. See: BMJ 2009;339:b3989

Figure 3 – Current over-reliance on out-of-pocket healthcare spending



Public healthcare spending will need to increase, but public healthcare financing is not growing fast enough to overcome the funding gap – and sometimes not growing at all. As a result, a combination of different funding mechanisms is needed to overcome the funding gap, decrease the over-reliance on OOP spending, and meet the projected increase in healthcare expenditure. Healthcare SEs, private healthcare financing, and public-private partnerships can fund healthcare delivery and provide financial protection for the underserved more rapidly.

SEs hold a unique position within the private sector, being profit-making entities that are driven by a social mission to target underserved people with healthcare services. Within the diverse health systems across South Asia, SEs are exploring cost-effective and innovative interventions to respond to the health challenges that most affect the poor. This is called ‘pro-poor health financing’, which is pursued on a larger scale by national governments and donors.

Even in the case of universal coverage, SEs retain a vital role in complementing national health services when governments lack resources or trust by communities. Innovative healthcare requires a deep understanding of the local context, and a carefully planned approach grounded in strong evidence of market need. SEs often understand the local needs and context better than larger providers.

Some of the risks associated with other private providers may not apply to health SEs. For example, because a SE does not exist *primarily* to make profit, there are fewer financial incentives to cut corners, contravene regulations or disregard guidelines.

3 Innovative Financing Solutions

A range of innovative healthcare financing solutions have emerged alongside public, tax-financed healthcare systems. Healthcare entities employ a range of financing options, from pure donation and philanthropy-based funding models to fully financially sustainable models that do not solicit donations over time to fund their operations. There are also blended and hybrid funding models that leverage both donations and earned revenues. These different financing models have varying benefits and limitations in helping achieve access to healthcare. The different funding mechanisms are predominantly relied upon by a corresponding set of funders, as shown in Table 5.

Table 5 - Funding mechanisms and funding sources

	Donor mechanisms		Blended/hybrid capital		Capital markets models	
Funding mechanisms	Crowdfunding		Social Impact Bonds		Public debt and equity	
	Grants		Innovative Loan Facilities		Private debt and equity	
	Advance market commitments		Buffer Fund		Working capital loan facilities	
	Prizes		Product Development Partnerships			
			Credit guarantees			
			Cross-subsidization and Profit plough-back			
Funders	Philanthropists		Government		Institutional investors	
	DFIs, Development banks		DFIs, Development banks		Retail investors	
	Foundations, NGOs		Private HNWIs and impact investors		DFIs, Development banks	
			Foundations, NGOs			

Innovative financing has the potential to accelerate the achievement of universal access to healthcare across more countries in Asia. New funding mechanisms and financial instruments will assist in channeling the necessary funding to healthcare providers in Asia. With overstretched public funding and a lack of public healthcare infrastructure, private investment and bilateral and multilateral financing can assist in scaling healthcare solutions to reach those who currently lack financial risk protection, access to healthcare, and improved health outcomes.

This study looks at six high-potential funding mechanisms emerging in the spectrum of healthcare financing options.¹⁷ These form a continuum from donor-based funding, through blended and hybrid

¹⁷ This is not meant to be an exhaustive analysis of innovative funding mechanisms, but a study of a selection of existing and emerging funding mechanisms.

capital, to capital markets-based models. Together these can help overcome the current funding gap and finance a foundation for universal healthcare in the future. These models are **crowdfunding**, **social impact bonds**, **innovative loan facilities**, **buffer funds**, **project development partnerships**, and impact-focused **public debt and equity**.

3.1 Donor Mechanism: Crowdfunding

Crowdfunding emerged from crowdsourcing, which makes use of online communities to access ideas, technical expertise, creative skills, and democratic processes. It is a donor based mechanism for raising money by soliciting relatively small contributions from a wide range of individuals. It has gained momentum with the aid of modern technology since the early 2000s.

Crowdfunding relies on pooling the resources of independent individuals to raise capital toward a specific project, product, or organization. Funding is often solicited from a defined fundraising base, by employing a strong online marketing strategy and accepting donations through online platforms. Crowdfunding provides an alternative to the traditional venture capital raising approach, especially for start-up and early stage healthcare entities. Instead of pitching an idea to a specific investor or group of investors, crowdfunding offers companies the ability to reach out to the masses to solicit funding for their organization.

Some crowdfunding platforms specifically target healthcare innovation. MedStartr allows users to set up profiles for their healthcare innovations and for donors to support fundraising campaigns, traditionally less than \$1 million. Depending on the amounts donated, donors are typically awarded recognition for their support in some form, for example by receiving a personalized letter from the beneficiaries of the healthcare innovation they support, or by having a piece of the supported organization's products or services named after the donor.

Some quasi-crowdfunding platforms are emerging with a focus on equity investments instead of donations. Healthfundr Inc. typically raises between \$500,000 and \$5 million for organizations from accredited investors based in the USA. Investors on Healthfundr receive equity in the start-ups they support, and the platform is restricted to accredited investors as opposed to any interested donor.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Low risk • Leverage on the wisdom of the crowd • Transparent mechanism for audience feedback and engagement • Allows unconventional financing and opens up global funding sources • Credible exposure to conventional financiers after having secured first round of funding 	<ul style="list-style-type: none"> • Questions over the long term success and scalability of crowdfunding as it involves non-professionals making investment decisions not necessarily informed by viability of the organization they are supporting. • Needs a donor/supporter base to start the fund raising • Most of the present donors are in the Western market • Donor fatigue as the same groups of people might be approached repeatedly • Lack of sound legal framework creates risks of abuse • Lack of post-transaction monitoring, thus creates room for divergence or failures

Because crowdfunding is donor based, it is more easily suited for funding untested innovations. Innovative, tech-focused, product-based and early-stage healthcare entities have the greatest potential for crowdfunding as a source of funding. This is partly explained by the fact that offerings and related impact tend to be more easily understood by the audience. In other words, a business concept, which has a direct link between the products and positive health outcomes is more likely to generate the necessary presence and ‘buzz’ to capture the attention of donors.

Crowdfunding has mostly funded projects that can present a clear link between donation and project outputs to potential donors and have a sense of urgency with targeted marketing campaigns. For example, startups like Misfit Wearables, which is developing a wearable activity tracker, succeeded in crowdfunding by offering a pre-sale of its product to their crowdfunding supporters. Healthcare initiatives that offer equity rather than ‘cool devices’ or consumer products in return for the funders’ contribution appeal to a narrower set of funders. This makes crowdfunding especially difficult for entities focused, for example, on delivery of primary care services.¹⁸ The same is true for healthcare entities that provide financing solutions and healthcare insurance, and crowdfunding is almost entirely unsuited to provide working capital. As such, crowdfunding may be a powerful financing tool when dovetailed with other financing mechanisms, but is unsuited as a permanent and reliable funding source for sustained growth of healthcare entities.

3.2 Blended Capital: Social Impact Bonds

Social Impact Bonds (SIBs) are a pay-for-performance model and a form of impact investment that focuses on prevention and early treatment. In existing SIB models, the government contracts a financial intermediary to sell bond-like instruments to investors. The proceeds cover the upfront costs of setting up or expanding programs that have pre-defined intended outcomes. Repayment by the government is contingent upon outcomes being achieved. Such programs may be delivered by public sector entities, traditional private stakeholders, or social enterprises.

The investors assume the performance risk of the program against a financial upside that is linked with the performance of the program being funded through the bond issuance. SIBs do not yield a fixed rate of return like conventional bonds. The financial return depends on certain outcomes being delivered, and the return is typically paid out based on government savings resulting from the success of the program. The innovative model means that each stakeholder has financial exposure, thus spreading the risk to make the funding stream attractive to all.

¹⁸ <http://www.healthcarefinancenews.com/news/crowd-funding-healthcare-startups>

Advantages	Disadvantages
<ul style="list-style-type: none"> • Transfers financial risk from government to investors • Transfers upfront programmatic costs from government to investors, with repayment funding from cost savings • Successful pilot SIB that fund large, preventive health programs • Strong emphasis on social impact with third-party evaluation of results • Exposure to broad set of investors • Creates multi-stakeholder solutions with public and private support 	<ul style="list-style-type: none"> • Limited to large, scalable and replicable healthcare programs with clear, measurable impact and targets • Relies on public sector buy-in • Data intensive nature requires support from a sophisticated and mature ecosystem • The backing government must be creditworthy

SIBs are best suited for larger-scale programs with a specific target beneficiary group and clearly defined outcomes.¹⁹ Hospitals, clinics and other primary healthcare providers are less suited given their generally broader focus, whereas initiatives that can show a clear strategy for targeting a specific group and linking their programs to specific outcomes are more likely to be able to employ SIBs. To date, SIBs have been targeted at specific diseases or behavioral change related to health concerns, such as:

- Public health campaigns to change behaviors, such as smoking and healthy diets
- Long term condition management such as asthma and diabetes
- Service design improvement to reduce emergency admissions²⁰

Early SIB models have been piloted in developed countries, where they rely on collaboration with government departments and transparent data sharing. The most famous example of SIB is the first one set up in 2010 by Social Finance, a UK not-for-profit, which raised approximately \$7.75 million (£5 million) from 17 investors including the Rockefeller Foundation. The first bond aimed to reduce re-offending amongst male prisoners in the UK, by financing the work of experienced social sector organizations to provide intensive support for 3,000 short-term prisoners over a six year period, both inside prison and after release, to help them resettle into the community. If this initiative reduced recidivism by 7.5%, or more, investors would receive a share of the long term savings from the Government. The percentage drop in recidivism beyond the threshold correlates to the investor return, up to a maximum of 13%. Another example of a Changing Behaviors health program that is being considered for SIB is an asthma prevention program in Fresno, California.²¹

The first SIB in a developing country is set to launch in 2014 to fight malaria in Mozambique.²² This bond displays innovative characteristics by leveraging the support of a private sector stakeholder – in this case the restaurant franchise Nando's and the gold producer AngloGold Ashanti, among others. This SIB aims to raise between \$500 Million and \$700 million from corporations, impact investors, governments and donors to fund 12 years of interventions reaching over 8 million people in Mozambique. Investors will receive outcome based repayments from corporations, donors and

¹⁹ <http://www.healthcarefinancenews.com/news/social-impact-bonds-healthcare>

²⁰ http://www.socialfinance.org.uk/sites/default/files/health_1.pdf

²¹ <http://ehp.niehs.nih.gov/121-a45/>

²² <https://www.devex.com/en/news/how-a-restaurant-chain-pioneered-a-social-impact/82212>

governments if the program meets its goals. If the program doesn't meet the stated goals, investors will only receive a portion of their principal.

The main barrier to SIBs is the need for a large, credible, credit-worthy backer of the bond issuance – typically a national government. Multilateral organizations, such as the Asian Development Bank, could play the role of the government by acting either as the guarantor or backer of the SIB and ensuring repayment to the bondholders upon maturity. SIBs are best suited to fund a large-scale program or initiative that involves a range of stakeholders, potentially SEs, that are involved in delivering the services to yield the intended measurable outcome.

3.3 Blended Capital: Innovative Loan Facilities

Innovative loan facilities have been used to finance healthcare services for the last decade. The loan facilities provide credit financing to cover the costs of long terms projects that take time to generate returns, such as Research and Development. Innovative loan facilities make use of creative relationships and structures to leverage the resources of different stakeholders toward a common goal and reduce the cost of pure debt financing. Innovative loan facilities can increase the role of financing by increasing the penetration of debt financing in Asia.

Examples of innovative loan facilities include leveraging long-term donor commitments from national governments in order to access commercial credit from private stakeholders, and leveraging longer-term philanthropic and patient capital to set up a buffer fund for shorter term credit financing of healthcare services for the end user.

Through innovative loan facilities, a larger, impact-oriented investor or donor agrees to commit funding to cover the costs of a targeted healthcare intervention. The investor or donor assumes the financial risk of the project either as part of their portfolio, or against a longer-term expected financial upside of the project. The healthcare service provider is thus able to access the necessary funding to set up a new initiative.

The most high profile example of innovative loan facilities is the International Finance Facility for Immunization (IFFIm) – commonly known as the GAVI Bonds – which has supported the vaccination of 91 million children through the GAVI Alliance since 2006.²³ Through IFFIm, the governments of United Kingdom, France, Italy, Norway, Australia, Spain, The Netherlands, Sweden and South Africa have pledged future grants toward immunization programs. IFFIm utilizes 'frontloading', by monetizing the present value of future donor commitments. IFFIm issues bonds in the international capital markets that are repaid when earmarked donor funding comes in. IFFIm has been able to raise a total of \$3.6 billion since 2006 to scale up GAVI's immunization efforts much more rapidly than would have been possible had the healthcare program been funded over time. On the capital markets side, the bondholders receive their financial return over the lifetime of the bond as the donor contributions trickle in according to the commitments of the national governments. Investing in vaccination today rather than over time affords more flexibility to access funds when needed most, and not only when disburseable by its donors. The predictable, frontloaded funding also allows for the rapid roll-out of new and underused vaccines, thus helping to achieve better health outcomes.

²³ <http://www.iffim.org/about/overview/>

Other innovative loan facilities have been proposed and tested for different purposes, such as the buffer fund to finance catastrophic healthcare in Bangladesh (discussed in detail in section 3.4). The buffer fund focuses on catastrophic health care costs. It offers opportunities for individuals and households affected by such costs to cushion or buffer the impact of catastrophic expenditures by securing credit to pay back the expenditures over a reasonable period of time. Another example is the Debt2health initiative, whereby a donor government agrees to reduce part of a loan ineligible for debt relief in exchange for a commitment by the debtor nation to invest half of the nominal value of the debt in a relevant program. This has been implemented by the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2007.

Innovative loan facilities for healthcare solutions share certain characteristics:

- Long-term vision with clear deliverables targeting a well-documented challenge;
- Broad-based support from large stakeholders – typically national governments and development banks;
- Specific focus on certain diseases or health conditions; and
- Financing is typically supply-driven, where the funders have a pre-existing desire to fund initiatives targeting a specific healthcare challenge and are exploring funding models.

Variations on the above do exist, in particular in more mature healthcare markets and for entities outside the healthcare value chain. For example, more mature companies involved in healthcare research, development, and manufacturing are able to draw on specialized loan facilities for working capital.²⁴

Advantages	Disadvantages
<ul style="list-style-type: none"> • Low cost as percentage of raised funds • Transparent mechanism for accountable use of funds • Exposure to broad set of investors 	<ul style="list-style-type: none"> • Limited to large organizations • Costly to raise capital in traditional markets in absolute terms • Lack of frameworks to track social and environmental impact in traditional markets • Requires larger anchor donor(s)

Healthcare initiatives supported by innovative loan facilities typically fall into one of two categories:

- Healthcare projects that need a minimum scale to become financially viable, or profitable, and struggle to access commercial funding to reach that threshold; or
- Healthcare programs that enjoy broad public sector support over the lifetime of the project, but need relatively large amounts of capital up-front to compliment on-going funding over the lifetime of the program.

Loan facilities are best suited to larger organizations that focus on financing access to healthcare services. Delivery of general primary care is less suited given the broader focus, and these organizations tend to lack the scale, long-term sustainability, and targeted setup required to access this type of funding.

²⁴ See e.g. GE Capital's Healthcare Financial Services, <http://www.gehealthcarefinance.com/home>

3.4 Blended Capital: Buffer Fund

Buffer funds to cushion the impact of catastrophic healthcare expenditures are currently being explored in a number of markets. These funds would be financed with blended capital including a mix of donor capital and commercial capital. BRAC Health Innovations Program's (bHIP) proposed buffer fund for catastrophic healthcare financing is an example of an innovative loan fund to finance healthcare. Designed by Impact Investment Exchange (IIX), the fund is structured as a component of a comprehensive health insurance program for the poor, and protects against shocks to a household's expenditures that may arise from catastrophic illnesses. The innovative nature of the facility stems from the ability of a buffer fund to balance affordability with broad coverage and universal eligibility for the poor.

The buffer fund allows families that are covered by the bHIP service package to borrow money to cover diagnostics, transportation, and hospitalization in the case of catastrophic injuries and illnesses. Donors, impact investors, and commercial capital providers commit finances to set up the buffer fund, before the fund can be drawn upon by eligible patients in need of treatment. The loans are paid back to the buffer fund over a 1, 3, or 5-year period – depending on the loan size. This allows the patients to access care they otherwise would not have been able to afford by spreading their payments over a period of time, as opposed to requiring out-of-pocket payment at the point of receiving care.

The bHIP Buffer Fund is designed to leverage a modest subsidy to extend healthcare financing to some of the poorest in Bangladesh. The fund will sustain itself by charging a higher interest rate to the patients than the rate on the concessional financing used to set up the buffer fund. By leveraging a \$9.7 million donor-provided subsidy over the first five years to extend \$103 million in loans – the Buffer Fund is projected to provide access to catastrophic healthcare for more than 1.1 million individuals. The subsidy needed is projected to decrease over time as the number of participants in bHIP grows. The size of the subsidy is significantly smaller than the cost of outright funding access to healthcare services for the target group. As such, the bHIP buffer fund presents an interesting use of an innovative loan facility to finance access to healthcare services.

Catastrophic buffer funds require scale to achieve financial sustainability. The structure allows healthcare financiers to leverage modest subsidies to set up the fund to achieve large scale financing of healthcare services for the poorest segments of a community. As such, the buffer fund presents one of the most innovative solutions for rapid reduction of OOP spending and increased financial protection for the poor, and merits increased focus by philanthropic and institutional donors.

3.5 Blended Capital: Product Development Partnerships (PDP)

PDPs are a variation of public-private partnership that focuses on improving health outcomes. They are structured collaborations between the public and private sectors that create new pathways to treat and cure diseases that primarily affect developing country populations. PDPs layer grant funding with private sector in-kind funding, frequently in the form of pro bono research, development, and drug testing. In collaborating toward a common objective, the consortium of public sector, NGOs, academics, foundations and private sector are able to effectively discover, create, test, and eventually distribute new medicines.

PDPs align the incentives of all stakeholders involved. They leverage private sector expertise and facilities while using grant funding to accelerate the delivery of health solutions for neglected diseases.

PDPs are necessary because the economics of new medicine development are unfavorable for diseases that mostly affect poor and marginalized communities. Private companies prioritize their research and development budgets for diseases that have broader market appeal and high commercial return. However when working in partnership with other stakeholders, the synergy can offset the costs of pre-clinical research as well as phase one and phase two clinical trials. In exchange for grant capital to cover a significant proportion of the research and development costs, private companies dedicate pro bono staff and access to advanced medical facilities. They also agree upfront to a pricing structure that ensures maximum access in disadvantaged communities to any new medicines derived out of the PDP. Participating private companies frequently retain rights to the potential patent, and in some cases, the distribution rights for any new government-approved medicines. The off-setting of upfront costs along with the potential upside have encouraged significant multinational companies to join PDPs and bring their scientific expertise and organizational capabilities to curing diseases that have plagued developing countries for generations.

PDPs operate on a ‘portfolio’ model, where several solutions to a specific disease are explored and the most successful ones are accelerated. PDPs are organized as non-profit organizations, and while they may be able to secure loans, they typically rely on continuous large-scale grants.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Cost sharing mechanisms to overcome high R&D costs for new technologies • Successful track record of funding R&D for developing countries’ healthcare needs, including vaccines and preventive medicines²⁵ • Effective mechanism to bring academia, public and private sectors together in long-term partnerships 	<ul style="list-style-type: none"> • Best suited for larger portfolios of R&D • Limited proven use for funding service delivery and financing access • Requires broad-based support and buy-in from multiple stakeholders

PDPs layer grant funding with private sector pro bono expertise to increase research and development for diseases that primarily affect developing country populations. To galvanize and maintain donor interest, PDPs focus on communicable diseases that disproportionately affect disadvantaged communities. The three most common diseases that PDPs concentrate on are: HIV/AIDS, malaria, and tuberculosis. Examples of PDPs include: the International AIDS Vaccine Initiative, International Partnership for Microbicides, and Aeras Global TB Vaccine Foundation.

As an example of layering risk, PDPs present an interesting model that could evolve to attract impact investing. Shujog believes that impact investment could help “free up” a portion of grant resources supporting PDPs. For example, a unique structured finance transaction whereby impact investors provide working capital with milestone-triggered repayment might bridge the costs of late stage clinical trial costs to manufacturing. Similarly in the next generation of PDPs, they could be structured to have a mezzanine layer of impact investment that offsets a portion of requisite grant funding. Mezzanine investors may be interested because of their keen interest in health outcomes and the possibility of both principal recovery and return should the PDP produce successful results. These

²⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67678/Issns-pdps-estb-dev-new-hlth-tech-negl-diseases.pdf

illustrative derivations on the PDP model are interesting possibilities to explore as the appetites of impact investors evolve.

3.6 Capital Markets Model: Private and Public Debt and Equity

Financing healthcare through capital markets is a multi-billion dollar industry globally as well as across Asia Pacific. Large healthcare companies such as Fortis Healthcare in India and Kalbe Farma in Indonesia are listed on public stock exchanges. Private investments in healthcare providers are also frequent, with large investments in Asia – including Khazanah Nasional’s acquisition of Parkway Holdings for \$2.6bn in 2010, and Temasek Holdings’ \$300mn investment in Shanghai Pharma in 2011.²⁶

These capital market financing options, however, typically benefit traditional healthcare organizations that have a limited focus on universal access to healthcare and are sufficiently large enough to absorb significant amounts of capital. Investing in SEs and otherwise supporting mission-oriented organizations that aim to bridge the gap in current healthcare access remains the field of few.

Creating mechanisms for healthcare SEs and other projects facilitating universal health coverage to access capital markets could help to bridge the funding gap. One of the potential solutions is financing health projects or a health entity through stock exchanges. This may be especially relevant for healthcare SEs. Stock exchanges can help healthcare initiatives access larger pools of capital needed to finance universal healthcare.

The emergence of social venture capital (SVC) firms and impact investors has enabled many healthcare SEs to raise debt and equity privately. However, the amount of capital managed by the SVC industry in Asia is a relatively small amount in comparison with the capital needed to deliver adequate healthcare services, achieve universal coverage, and finance access for the poor.

Public debt and equity markets represent a significantly larger potential for raising capital compared to existing impact investing mechanisms. Democratizing capital markets and opening impact investing up to the public through a social stock exchange could enable SEs to access vastly larger amounts of capital and improve the liquidity, transparency and accountability of impact investments.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Low risk, large scale • Low cost as percentage of raised funds • Transparent mechanism for accountable use of funds • Exposure to broad set of investors 	<ul style="list-style-type: none"> • Limited to large organizations • Lack of frameworks to track social impact in traditional markets

Financing healthcare through public debt and equity markets would enable mature healthcare SEs to access larger pools of capital. The potential to access public capital markets would also encourage more private investment into healthcare SEs as public markets would provide a greater chance for private investors to exit their investees.

Public debt and equity are well suited for any healthcare entity that is likely to reach the scale and maturity needed to access public capital markets. Healthcare SEs that focus on organizing delivery at

²⁶ Bain and Company: Global Healthcare Private Equity Report 2013.

scale are best suited to raise equity for their operations, whereas healthcare SEs that focus on financing access would benefit from debt offerings to raise capital for their operations. SEs that are exclusively focused on changing behaviors are less likely to reach the necessary scale. In addition, Shujog's survey of impact investors reveals that health and education rank among the preferred sectors for impact investment. This reflects the fact that these two sectors are traditionally the focus of more philanthropic activities, a sector from which some pioneer impact investors have evolved.

With the partial exception of microfinance institutions (MFIs),²⁷ SEs, including healthcare SEs, have so far found it difficult to access growth capital through public debt and equity. Before the launch of Impact Exchange in 2013, the only option for public capital raising has been through traditional capital markets, which place little or no emphasis on social value creation and mission realization. This may create adverse incentives for the management of healthcare and other SEs to emphasize financial returns to their shareholders rather than the effective realization of their social objectives.

Social stock exchanges (SSEs) such as the Impact Exchange better meet the needs of SEs and impact investors looking to invest. As a single site for the trading of securities issued by SEs, SSEs can provide traded instruments that offer liquidity for investors and information on the financial and social value generated by each listed entity. This greatly reduces the search costs otherwise incurred by SEs and impact investors. Just like regular stock exchanges, SSEs operate by facilitating the listing, trading, and settlements of shares, bonds, and other financial instruments. However, alongside traditional financial reporting, impact issuers must comply with social and environmental impact criteria. Listing on an SSE enables financially sustainable entities that address social and environmental issues, including SEs, NGOs, impact funds, and inclusive businesses, to raise capital and expand their operations.

²⁷ SKS Microfinance, an Indian non-banking finance company, became the first SE to raise capital through a public equity offering on the Bombay Stock Exchange in 2010.

4 Scaling Healthcare Financing

A combination of traditional and innovative financing is needed to bridge the current funding gap and achieve universal healthcare in Asia. Donor funding, including countries' commitments toward development assistance to provide vaccinations and healthcare for the poor, is crucial to reach the most destitute in the short to medium term – and innovative financing mechanisms should not detract from aid commitments to be carried through.²⁸ Donor funding is especially important for disease-specific interventions and preventive care to reduce contagious outbreaks, and to mobilize increased healthcare investments by crowding in private capital.

Demand for healthcare in Asia is vast, which means that scale remains the key issue to overcome in order to provide universal healthcare. Scale is critical to delivering affordable healthcare, and affordability is key to achieving universal coverage. At the same time, healthcare providers, including SEs, that target underserved populations constitute a small and relatively fragmented market. Smaller healthcare providers struggle to attract financing, while larger ones have better access to private and capital markets.

This leads many of the healthcare providers that target the poor and underserved to struggle with “The Scale-Inclusion-Sustainability Trade-off”.²⁹ This involves a careful balancing-act to avoid neglecting the original intended beneficiaries but also reaching scale in a sustainable way. Scaling up requires coordination with other providers to avoid duplication and fragmented projects and programs. Paying attention to the local context where services will be extended is also crucial. Scaling will involve a natural move away from dependency on grant funding and will necessitate that the provider consider revenue diversification.

Practically speaking, scaling up is an objective that, for health organizations, may involve:

- Increasing coverage, i.e. the number of people who use the organizations' services;
- Increasing the range of services offered by the organization;
- Replicating a service model which has proved effective in similar contexts;
- Making a service financially or politically sustainable;
- Increasing the impact made by a pilot project.

To achieve the above objectives, a combination of donor-funded mechanisms, blended capital, and capital markets models are needed to layer risk and bridge the current healthcare financing gap. According to the 2012 Impact Investor Survey report by J.P. Morgan and GIIN, impact investment portfolios display a specific set of risks, with ‘execution and management risk’, ‘country and currency risk’ and ‘macroeconomic risk’ being the most important ones. Key challenges to the growth of the impact investment space are the ‘lack of appropriate capital across the risk/return spectrum’, and ‘shortage of high quality investment opportunities with track record’.³⁰

²⁸ Evans, D.B. and Etienne, C., 2010. “Health systems financing and the path to universal coverage”, Bulletin of the World Health Organization, 2010; 88:402.

²⁹ Innovation Working Group, 2010. *Fostering healthy businesses: Delivering innovations in maternal and child health*.

³⁰ J.P. Morgan, and Global Impact Investing Network, 2013, ‘Perspective on Progress, The Impact Investor survey’, *Social Finance*

One further objective is to continue the shift away from reliance on donor funding and investments from Europe and the USA toward a greater reliance on “home grown” funders. Many of the countries that are traditionally the sources of both donor and investment capital for healthcare initiatives in Asia are increasingly battling healthcare challenges in their own markets, including aging populations and increasing burden of chronic, non-communicable diseases such as cardiovascular and respiratory diseases, cancer, obesity and diabetes.

Outside of financing challenges, there are also challenges related to human capital, expertise, and knowledge related to scaling. Strategic investors have a role to play in providing capital, but are also instrumental in bringing in the necessary skills and management expertise to scale healthcare solutions. This includes, but is not necessarily limited to, expertise to help healthcare initiatives lower their operational costs and enhance the reach of their delivery models to underserved populations.

4.1 Layering Risk

There is great potential for utilizing blended capital to bridge the financing gap. With blended capital, donor mechanisms provide first-loss capital that can be leveraged to create “layered deals” that target underserved groups. Such deals can generate high social impacts with philanthropic and public sector input while effectively offsetting some of the perceived market risk – thereby bringing in larger pools of capital from commercial investment partners.³¹

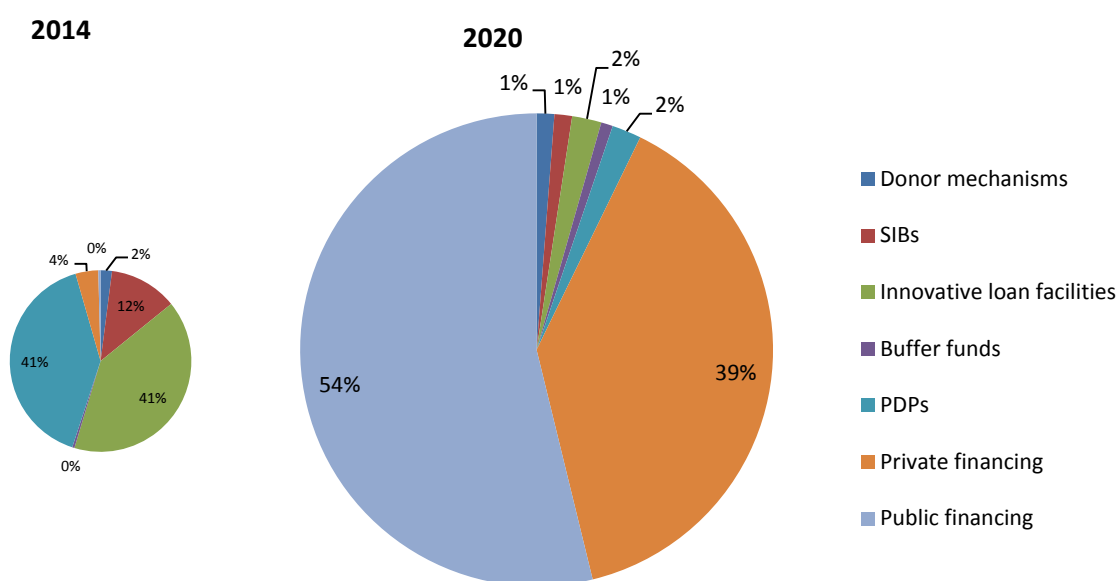
The most innovative healthcare financing models, in particular blended capital models, leverage donor funding and public financing to catalyze increased capital markets-based investments in healthcare solutions. Appropriate staging of the six types of funding discussed in this report can layer risk for private investors and incentivize private financing for inclusive healthcare delivery and healthcare financing organizations that target the underserved, provide pro-poor healthcare services, and thus promote increasingly universal healthcare access in Asia.

Some of the most effective impact investing projects involve partnerships between non-profit and commercial institutions. In addition to bringing in technical and geographic know-how, philanthropic organizations can participate with a below market rate investment – effectively subsidizing the market rate return required by the commercial lender, as in the case of the bHIP Buffer Fund – in exchange for a social return on investment. Multi-layered investing can come from different branches of a single institution. One example is the FreshWorks Fund, where JP Morgan Chase Foundation provided a \$2.5 million grant as a first loss capital for the JP Morgan Chase’s \$30 million investment in senior debt.

The scheduling of different finance mechanisms is important to incentivize the \$416 billion needed to bridge the financing gap between 2014 and 2020. Donor mechanisms, SIBs, innovative loan facilities, and PDPs are capable of playing a proportionally larger role in unlocking greater financial resources to achieve universal healthcare coverage. However, private and public financing through capital markets should gradually increase and become a key mechanism to bridge the financing gap by 2020. Figure 4 illustrates the shift in financing needed to achieve the financing goal.

³¹ Global Impact Investing Network, 2013, ‘Catalytic First-Loss Capital’, Issue Brief, October 2013

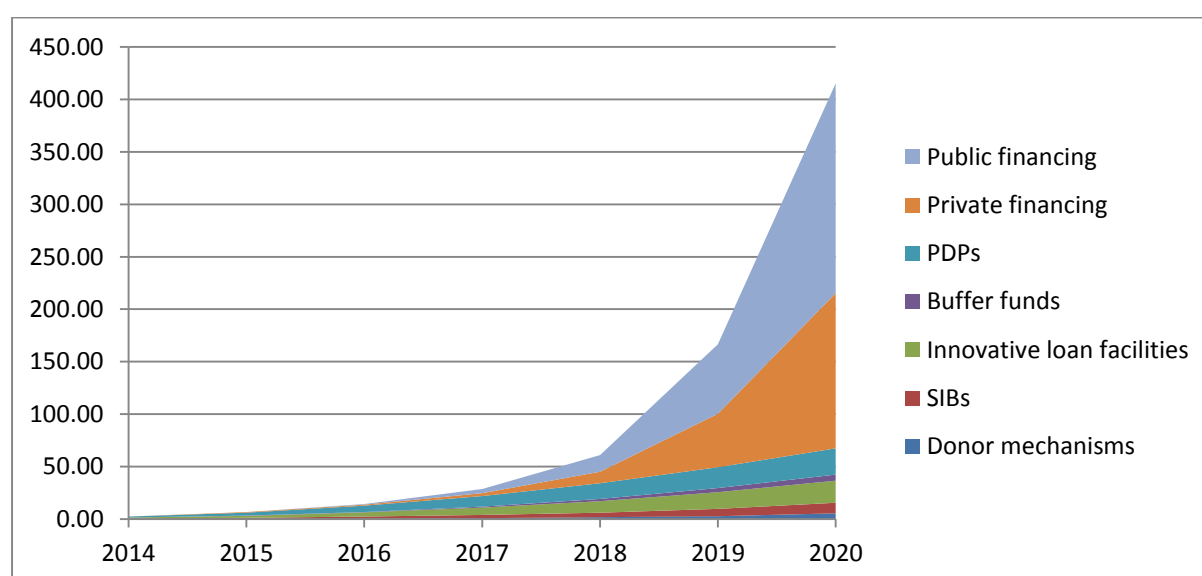
Figure 4 - Projected change in financing patterns



Continued commitments to healthcare financing from institutional donors and bilateral and multilateral aid agencies are needed in the short term – illustrated by the comparatively large portion of the financing gap in 2014 attributed to innovative loan facilities, PDPs, and SIBs, respectively. If employed effectively, such contributions will mobilize the necessary private and public investment to bridge the financing gap in healthcare.

Figure 5 illustrates the potential for donor financing and blended capital to bring in public and private capital market based investment capital. The scaling scenario illustrates the potential between 2014 and 2020 for blended financing to overcome the healthcare funding gap in Asia Pacific, estimated by Shujog at \$59.38 billion per year.

Figure 5 - Blended financing (illustration), US\$BN



Donor financing will continue to be crucial for financing the startup costs of community-based healthcare programs and finance mechanisms, such as micro-insurance and buffer funds. But donor financing should also be used to play a multi-functional role to catalyze impact investments in private and public capital markets – including on social stock exchanges – by financing technical assistance for healthcare providers to become market ready and capable of absorbing investment capital. Using donor funding in this manner, as first loss capital through a blended or hybrid funding model, permits layering of risk. This, in turn, will make healthcare financing through capital markets models more attractive, and permit inclusive healthcare providers that work toward universal coverage to access larger pools of private and public investment capital.

4.2 Conclusion – Bridging the Financing Gap

4.2.1 Crowdfunding

Crowdfunding for healthcare initiatives today is very limited – both compared to other healthcare financing mechanisms and compared to crowdfunding for other industries. Between 2014 and 2020, Shujog foresees crowdfunding and pure donation financing of healthcare initiatives to play a consistent but relatively small role. Crowdfunding for startups will be facilitated by improved linkages between the donations given and the impact of the organizations – especially for financing pro-poor and other inclusive healthcare initiatives whose direct beneficiaries are different from the financial backers. Improved linkages between the crowdfunding and social impact will also enhance the accountability of seed stage healthcare initiatives as they move toward scaling.

4.2.2 Social Impact Bonds

SIBs are still in their infancy and have tremendous potential for healthcare financing. SIBs is one of the key mechanisms in the short term growth of healthcare financing will be the largest contributor to bridging the financing gap in 2014-2017, together with innovative loan facilities and PDPs. SIBs are the best suited mechanism for initiatives aiming to change behaviors and preventative healthcare solutions.

4.2.3 Innovative Loan Facilities and Private Development Partnerships

Innovative loan facilities and PDPs will retain their role as the most important financing mechanisms for R&D and preventive healthcare activities, and will constitute the largest overall funding mechanisms in 2014-2017. Loan facilities and PDPs, just like crowdfunding, SIBs and buffer funds, can bring in private investments in healthcare initiatives. They are particularly suited to finance development of new technologies, incremental improvements of existing medicines and vaccines, and innovative application of such technologies and cures in new markets with a particular focus on underserved markets.

4.2.4 Buffer Funds

Buffer funds are the most novel of the financing mechanisms discussed in this study, and will consequently provide the smallest amount of financing in the medium term. However, buffer funds have powerful scaling potential and may become the most effective mechanism for bringing increased sustainability to initiatives that finance healthcare access for the poorest segments of underserved communities. Buffer funds leverage donations and enable each dollar of donations to provide up to \$10 of healthcare services for the poor.

4.2.5 Capital Markets

Capital markets are the most effective long-term funding mechanism for healthcare solutions. Healthcare providers and related businesses already constitute a large component of commercial capital markets. Healthcare is the third largest industry sector by market cap - more than 1 in 10 companies on the S&P 500 are healthcare companies, and the market cap of these companies in the S&P Index is more than \$2,200BN.³²

Private and public financing – both as debt and equity – are therefore pivotal to bridge the financing gap. Notwithstanding the significant contributions to date and scaling potential of the other financing mechanisms discussed herein, scaling financing in excess of \$400 billion by 2020 will require increased capital markets activity for healthcare solutions that promote universal healthcare cover. Commercial healthcare services, including in particular the pharmaceutical industry, are already large stakeholders in traditional capital markets. Building robust capital markets for impact-oriented healthcare investments will enable the inflow of sufficient capital to provide universal healthcare.

Catalyzing sufficient investment depends on a combination of industry expertise from traditional markets and the lessons learned from development professionals, institutional donors and pioneering impact investor professionals. This will be possible through effective use of donor and blended financing mechanisms to layer risk for capital market financing, and applying context-specific knowledge about efficient solutions to local healthcare needs. Blended capital and donor mechanism will remain the key financing mechanisms for bridging the financing gap until around 2018, by which time private and public capital markets will reach greater scale.

Private investment targeting healthcare initiatives that promote universal healthcare is already happening through a variety of social venture capital funds, private impact investment platforms, and other investment vehicles targeting underserved communities. While there are enormous private investment deals in traditional healthcare companies, an emerging and fast growing segment of investors are focused on social enterprises and other impact-oriented healthcare initiatives. This segment is expected to be the prime driver behind scaling such healthcare initiatives, and have the potential to grow into a multi-billion dollar industry to bridge the gap in access to healthcare services.

In parallel to the growth of inclusive healthcare initiatives funded by private investments, public investment platforms targeting impact investments are emerging. These platforms increase opportunities for retail investors to contribute to the financing new healthcare initiatives that provide healthcare services for the underserved. In the medium term, such public investment deals will be relatively small. However, with the emergence of public social investment platforms, public investments in inclusive healthcare initiatives will overtake private investments toward 2020 and become the main driver of capital toward inclusive healthcare initiatives.

³² Based on data from the S&P500. Correct as of March 31, 2014.